

REMARKS

Claims 1-20 are all the claims pending in the application.

Claim rejections Under 35 U.S.C. § 112, second paragraph

The Examiner rejects claims 1- 20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Applicant respectfully traverses the rejection.

The Examiner cites common language in claim 1 and claim 11 from which all the other claims depend as being indefinite. The Examiner states “a cross-section projected-image data generating means which generates, on the basis of the image data, cross-section projected-image data representing a cross-section projected-image obtained by projecting, onto a plane parallel to the designated cross section, averages of the pixel values arranged in the directions of depth in the region defined by the designated cross section and the designated depth including the designated cross section” common to claim 1 and 11 is unclear and confusing on Page 2 of the Office Action. The cross section projected-image data generating means is described, by example, with respect to Fig. 1 and page 8, lines 25-27, and page 9, lines 1-24 of the disclosure. One skilled in the art would understand the processing relative to the designated cross-section based on the current recitations of the claims in view of the disclosure. In particular, the processor works on averages of pixel values in the depth direction, as designated by the depth designating means up to, and including, the designated cross-section. The projection is thus in a plane parallel to the selected cross-section, and takes into account those pixels in the depth direction. Therefore, the Applicant respectfully submits that the rejection should be withdrawn.

Claim Rejections Under 35 U.S.C. § 102

The Examiner rejects claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by Suzuki et. al (U.S. Patent No. 6,961,911). As an initial matter, we would note that Suzuki does not qualify as prior art under 35 U.S.C. § 102(b). To the extent Section 102 applies, the Applicant respectfully traverses the rejection.

Claim 1 recites an image display system that consists of an image data obtaining means, a cross section designating means, a depth designating means, a cross section projected-image data generating means, an image processing condition setting means, and a display means. The image processing condition setting means sets the image processing conditions on the basis of the designated depth.

The Examiner rejects claim 1 as being anticipated by Suzuki, in part, because the Examiner alleges Suzuki teaches the image processing condition setting means of the present invention. While Suzuki does mention image display conditions can be adjusted by means of an image condition control means, it does not mention anything about the image display conditions being adjusted on the basis of the designated depth as required by claim 1 (Suzuki, col. 5, lines 1-9). The Examiner's own citation to col. 5, lines 1-9 tends to show that the rejection is not supportable. In particular, this description describes that adjustments in brightness and contrast are the same among the three images (x-section, y-section and z-section). The constancy across three dimensions would suggest that the process described at col. 5 is independent of depth. By contrast, claim 1 describes image processing as a function of depth.

In addition, claim 1 describes projection based on averages of pixel values arranged in depth directions. Suzuki is concerned with the display of individual cross-section across x y, and z directions. In this connection, the pixel values are considered serially. See col. 8, lines 35-37.

Nothing in Suzuki suggests the calculation of any averages in the depth direction. Therefore, claim 1 is patentable. Claim 11 is patentable for analogous reasons.

Claims 2-10 should be patentable for at least the same reasons because of their dependency on claim 1.

Claim 2 recites an image display system as defined in claim 1 wherein the image processing condition setting means set the image processing conditions on the basis of the kind of object represented by the image data. While the Examiner correctly cites Suzuki stating that the display is not limited to one kind of sectional image, Suzuki does not disclose that the image processing conditions are set on the basis of the kind of object represented by the image data (Suzuki, col. 10, lines 4-6). Therefore, claim 1 should overcome the rejection.

Claim 3 recites an image display system as defined in claim 2 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose of observation of the cross-section projected-image. For at least the same reasons of patentability of claim 2, claim 3 should be allowed. The Examiner cites Suzuki stating that the “observation of the cross-section projected image depends on the users mouse” (Suzuki, col. 4, lines 46-54). Suzuki does not disclose that image processing conditions are set on the basis of the purpose of observation of the cross-section projected-image. Therefore, claim 3 should overcome the rejection.

Claim 11 recites an image display system that consists of an image data obtaining means, a cross section designating means, a depth designating means, a cross section projected-image data generating means, an image processing condition setting means, and a display means. The image processing condition setting means sets the image processing conditions on the basis of analysis of the cross-section projected-image data.

The Examiner rejects claim 11 as being anticipated by Suzuki, in part, because the Examiner alleges Suzuki teaches the image processing condition setting means of the present invention. Suzuki does not mention anything about the image display conditions being adjusted on the basis of the analysis of the cross-section projected-image data as required by claim 11. Therefore, claim 11 should overcome the rejection.

Claims 14-20 should be patentable for at least the same reasons because of their dependency on claim 11.

Claims 12 should be patentable for at least the same reasons as claim 2.

Claims 13 should be patentable for at least the same reasons as claim 3.

Claims 21-23 are proposed to describe features of the invention more particularly.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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